

We claim:

1. A method comprising:
  - determining a plurality of calibration factors for a fluid-ejection mechanism capable of ejecting a plurality of differently colored fluids; and,
  - 5 adjusting an energy used to eject fluid for each of at least one of the plurality of fluid colors based on the plurality of calibration factors so that fluid drop ejections of the plurality of fluid colors yield fluid drop masses having a consistent ratio.
2. The method of claim 1, wherein determining the plurality of calibration  
10 factors comprises:
  - outputting a plurality of multiple-color fluid targets via fluid ejection, each multiple-color fluid target having a different combination of a plurality of fluid colors; and,
  - determining a most color-neutral target of the plurality of multiple-color fluid  
15 targets, such that the energy used to eject fluid for each of the at least one of the plurality of fluid colors is adjusted based on the most color-neutral target.
3. The method of claim 2, wherein outputting the plurality of multiple-color fluid targets via fluid ejection comprises varying an energy used to eject fluid drops of each of the plurality of fluid colors of each multiple-color fluid target.
- 20 4. The method of claim 3, wherein adjusting the energy used to eject the fluid for each of the at least one of the plurality of fluid colors comprises determining the energy used to eject the fluid for each of the plurality of fluid colors of the most color-neutral target.
5. The method of claim 2, wherein outputting the plurality of multiple-color fluid  
25 targets via fluid ejection comprises varying a number of fluid drops ejected of each of the plurality of fluid colors of each multiple-color fluid target.

6. The method of claim 5, wherein adjusting the energy used to eject the fluid for each of the at least one of the plurality of fluid colors comprises, for each fluid color of the at least one of the plurality of fluid colors:

5 determining the number of fluid drops ejected for the fluid color on the most color-neutral target; and,

adjusting the energy used to eject the fluid for the fluid color based on the number of fluid drops ejected for the fluid color on the most color-neutral target compared to a reference number of fluid drops that should have been ejected to ensure color neutrality.

10 7. The method of claim 6, wherein adjusting the energy used to eject the fluid for the fluid color based on the number of fluid drops ejected for the fluid color on the most color-neutral target compared to the reference number of fluid drops that should have been ejected to ensure color neutrality comprises  
15 adjusting the energy used to eject the fluid for the fluid color based on a linear relationship between energy and drop mass for the fluid color.

8. The method of claim 6, wherein adjusting the energy used to eject the fluid for the fluid color based on the number of fluid drops ejected for the fluid color on the most color-neutral target compared to the reference number of fluid drops that should have been ejected to ensure color neutrality comprises  
20 adjusting the energy used to eject the fluid for the fluid color based on an assumed relationship between energy and drop mass for the fluid color.

9. The method of claim 6, wherein adjusting the energy used to eject the fluid for the fluid color based on the number of fluid drops ejected for the fluid color on the most color-neutral target compared to the reference number of fluid  
25 drops that should have been ejected to ensure color neutrality comprises adjusting the energy used to eject the fluid for the fluid color based on a determined relationship between energy and drop mass for the fluid color.

10. The method of claim 9, wherein adjusting the energy used to eject the fluid for the fluid color based on the number of fluid drops ejected for the fluid color on the most color-neutral target compared to the reference number of fluid drops that should have been ejected to ensure color neutrality further

5 comprises:

outputting a plurality of fluid drops of the fluid color such that the energy used to eject each of the plurality of fluid drops is different;

determining a drop mass of each of the plurality of fluid drops; and,

determining the relationship between energy and drop mass for the fluid

10 color based on the drop mass of each of the plurality of fluid drops and the energy used to eject each of the plurality of fluid drops.

11. The method of claim 2, wherein determining the most color-neutral target of the plurality of multiple-color fluid targets comprises:

15 scanning each of the plurality of multiple-color fluid targets to determine a chroma value of each of the plurality of multiple-color fluid targets;

selecting the most color-neutral target as one of the plurality of multiple-color fluid targets having a minimum chroma value.

12. The method of claim 1, wherein adjusting the energy used to eject fluid for each of at least one of the plurality of fluid colors comprises adjusting the energy used to eject fluid for each of at least one of the plurality of fluid colors so that fluid drop ejections of the plurality of fluid colors yield substantially identical fluid drop masses.

13. The method of claim 1, wherein the fluid-ejection mechanism comprises a plurality of inkjet printheads, each inkjet printhead capable of ejecting a differently colored ink as one of the plurality of different color fluids.

14. A computer-readable medium having a computer program stored thereon to perform a method comprising:

causing a fluid-ejection mechanism to output a plurality of multiple-color fluid

targets onto media, each multiple-color fluid target having a different combination of a plurality of fluid colors, an energy used to eject fluid drops of each of the plurality of fluid colors of each multiple-color fluid target being varied;

- 5 causing a scanning mechanism to scan each of the plurality of multiple-color fluid targets to determine a chroma value of each of the plurality of multiple-color fluid targets; and,

adjusting an energy used to eject fluid for each of the plurality of fluid colors based on the energy used to eject the fluid for each of the plurality of fluid colors  
10 of one of the plurality of multiple-color fluid targets having a minimum chroma value.

15. A fluid-ejection assembly comprising:

a fluid-ejection mechanism capable of ejecting a plurality of differently colored fluids onto media;

- 15 a sensing mechanism capable of sensing at least a chroma value of different parts of the media; and,

a controller to cause the fluid-ejection mechanism to output a plurality of multiple-color fluid targets onto the media, to cause the sensing mechanism to sense the chroma value of each multiple-color fluid target, and to adjust an  
20 energy used to eject each of at least one of the plurality of differently colored fluids based on one of the plurality of multiple-color fluid targets having a minimum chroma value.

16. The fluid-ejection assembly of claim 15, wherein the fluid-ejection mechanism comprises a plurality of inkjet printheads, each inkjet printhead  
25 capable of ejecting a differently colored ink, such that the fluid-ejection assembly is an inkjet-printing assembly.

17. The fluid-ejection assembly of claim 15, wherein the plurality of differently colored fluids comprises cyan fluid, magenta fluid, and yellow fluid.

18. The fluid-ejection assembly of claim 15, wherein the sensing mechanism comprises an optical sensor capable of sensing a luminance value, a hue value, and the chroma value of different parts of the media.

19. The fluid-ejection assembly of claim 15, wherein an energy used to eject  
5 fluid drops of each of the plurality of differently colored fluids varies over the plurality of multiple-color fluid targets.

20. The fluid-ejection assembly of claim 15, wherein a number of drops of each of the plurality of differently color fluids varies over the plurality of multiple-color fluid targets.

10 21. A fluid-ejection assembly comprising:  
means for ejecting a plurality of differently colored fluids onto media;  
means for sensing at least a chroma value of different parts of the media;  
and,  
means for adjusting an energy used to eject each of at least one of the  
15 plurality of differently colored fluids based on one of a plurality of multiple-color fluid targets having a minimum chroma value.

22. The fluid-ejection assembly of claim 21, wherein the plurality of differently colored fluids comprises a plurality of differently colored inks.

23. The fluid-ejection assembly of claim 21, wherein the plurality of differently  
20 colored fluids comprises cyan fluid, magenta fluid, and yellow fluid.

24. An image-forming device comprising:  
a fluid-ejection assembly capable of ejecting a plurality of differently colored fluids onto media and of sensing at least a chroma value of different parts of the media;

25 a media-movement assembly to advance the media relative to the fluid-

ejection assembly; and,

- a controller to cause the fluid-ejection assembly to output a plurality of multiple-color fluid targets onto the media and to sense the chroma value of each multiple-color fluid target, the controller also to adjust an energy used to eject each of at least one of the plurality of differently colored fluids based on one of the plurality of multiple-color fluid targets having a minimum chroma value.

25. The image-forming device of claim 24, wherein the fluid-ejection assembly comprises:

- 10 a plurality of inkjet printheads, each inkjet printhead capable of ejecting a differently colored ink, such that the image-forming device is an inkjet-printing device; and,
- an optical sensor capable sensing a luminance value, a hue value, and the chroma value of different parts of the media.

- 15 26. The image-forming device of claim 24, wherein an energy used to eject fluid drops of each of the plurality of differently colored fluids varies over the plurality of multiple-color fluid targets.

27. The image-forming device of claim 24, wherein a number of drops of each of the plurality of differently color fluids varies over the plurality of multiple-color fluid targets.

28. An image-forming device comprising:

means for ejecting a plurality of differently colored fluids onto media and for sensing at least a chroma value of different parts of the media;

means for advancing the media; and,

- 25 means for adjusting an energy used to eject each of at least one of the plurality of differently colored fluids based on one of a plurality of multiple-color fluid targets having a minimum chroma value.

29. The image-forming device of claim 28, wherein the plurality of differently colored fluids comprises cyan ink, magenta ink, and yellow ink.